

## MOBILE COMMUNICATION TERMINAL

### CROSS-REFERENCE TO RELATED APPLICATION

[0001] This application claims priority from and the benefit of Korean Patent Application No.10-2009-0034554, filed on Apr. 21, 2009, which is hereby incorporated by reference for all purposes as if fully set forth herein.

### BACKGROUND OF THE INVENTION

[0002] 1. Field of the Invention

[0003] This disclosure relates to a mobile communication terminal, and more particularly to a mobile communication terminal having an upper body and a lower body connected together by a swivel hinge unit that changes the relative angles formed by the upper body and the lower body according to a swiveling movement.

[0004] 2. Discussion of the Background

[0005] Currently, a mobile communication terminal may include not only a basic telephone call function but also functions for listening to music, playing games, receiving and displaying photos and video images, capturing and storing photos and videos, and so on, and the design and structure of the mobile communication terminal should adapt according to those functions.

[0006] For example, a swivel-type mobile communication terminal may have an upper body and a lower body that may be rotated with respect to each other.

[0007] However, as shown in FIG. 1A, FIG. 1B, and FIG. 1C, in the general swivel-type mobile communication terminal 10, an upper body 12 and a lower body 14 maintain a constant angle before and after the swiveling movement.

[0008] Thus, as shown in FIG. 2A, in order to watch an image displayed on display 18, a user may raise the mobile communication terminal 10 substantially vertically such that the user's gaze X faces the display 18. In this case, the wrist of the user gripping the lower body 12 including the speaker 20 and the key input unit 16 is also folded toward the user's body, and the user's thumb Y is raised upward, so the user's thumb Y may get stiff. Further, it may be difficult to manipulate the key input unit 16 while watching the display 18.

[0009] The user may stretch out the wrist as shown in FIG. 2B to relax the user's hand. However, this position of the mobile communication terminal 10 may reduce the visibility of the display 18.

### SUMMARY OF THE INVENTION

[0010] Exemplary embodiments of the present invention provide a mobile communication terminal having an upper body and a lower body, which form different angles relative to each other before and after the swiveling movement such that the upper body and lower body may be tilted relative to each other.

[0011] Additional features of the invention will be set forth in the description which follows, and in part will be apparent from the description, or may be learned by practice of the invention.

[0012] An exemplary embodiment of the present invention discloses a mobile communication terminal, including an upper body, a lower body and a swivel hinge unit connecting the upper body to the lower body. The swivel hinge unit is to perform a swiveling movement of the lower body relative to the upper body from a first position to a second position.

Further, the swivel hinge unit rotates about a central axis arranged with an inclined angle with respect to a first axis formed by the upper body and the lower body in the first position. Also, the upper body and the lower body in the second position are bent relative to each other at a tilting angle.

[0013] An exemplary embodiment of the present invention discloses a mobile communication terminal, including an upper body, a lower body and a swivel hinge unit connecting the upper body to the lower body, the swivel hinge unit to swivel the lower body from a first position to a second position relative to the upper body. Further, the upper body and the lower body in the first position form a first angle, and the upper body and the lower body in the second position form a second angle, and the first angle and the second angle are different.

[0014] It is to be understood that both the foregoing general description and the following detailed description are exemplary and explanatory and are intended to provide further explanation of the invention as claimed.

### BRIEF DESCRIPTION OF THE DRAWINGS

[0015] The accompanying drawings, which are included to provide a further understanding of the invention and are incorporated in and constitute a part of this specification, illustrate embodiments of the invention, and together with the description serve to explain the principles of the invention.

[0016] FIG. 1A, FIG. 1B, and FIG. 1C are perspective views showing a general swivel-type mobile communication terminal, in which a swiveling movement is sequentially depicted.

[0017] FIG. 2A and FIG. 2B are schematic perspective views showing the general swivel-type mobile communication terminal being gripped and used.

[0018] FIG. 3A, FIG. 3B, and FIG. 3C are perspective views showing a swivel-tilting-type mobile communication terminal according to an exemplary embodiment of the present invention, in which a swiveling movement of a lower body is sequentially depicted.

[0019] FIG. 4A and FIG. 4B are schematic side sectional views showing the swivel-tilting-type mobile communication terminal according to an exemplary embodiment of the present invention, which figures respectively correspond to FIG. 3A and FIG. 3C.

[0020] FIG. 5 is a schematic view showing the swivel-tilting-type mobile communication terminal according to an exemplary embodiment of the present invention being used.

[0021] FIG. 6 is a schematic view showing the mobile communication terminal according to an exemplary embodiment of the present invention, which is swivel-tilted and used for a telephone call.

### DETAILED DESCRIPTION OF THE ILLUSTRATED EMBODIMENTS

[0022] Exemplary embodiments now will be described more fully hereinafter with reference to the accompanying drawings, in which exemplary embodiments are shown. This disclosure may, however, be embodied in many different forms and should not be construed as limited to the exemplary embodiments set forth therein. Rather, these exemplary embodiments are provided so that this disclosure will be thorough and complete, and will fully convey the scope of this disclosure to those skilled in the art. In the description, details